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Migration *and* Settlement

ON THE

PACIFIC COAST

REPORT No. 5



CUT-OVER LAND OF NORTHERN IDAHO

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

IN COOPERATION WITH

IDAHO AGRICULTURAL EXPERIMENT STATION

ACKNOWLEDGMENTS

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This publication is one of 12 proposed reports dealing with the problems of migration and settlement on the Pacific Coast. Report No. 4, "New Farms on New Land", issued January 1941 is the only report published so far. The study of these problems of migration and settlement is being undertaken jointly by three divisions of the Bureau of Agricultural Economics. The studies have three major segments: State-wide surveys of migration to the Far Western States; detailed field surveys on a sample basis of the economic situation and prospects of migrants who have relocated in these States; and an appraisal of the more important public policies affecting the settlement of the migrant group.

MIGRATION AND SETTLEMENT ON THE PACIFIC COAST
REPORT NO. 5. CUT-OVER LANDS OF NORTHERN IDAHO

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SUMMARY

This report of recent settlement on the cut-over lands of northern Idaho presents the results of one segment of a broad study of migration to the Western States from 1930 to 1938, carried on by the Bureau of Agricultural Economics. Other parts of the study include investigations of recent settlement in the cut-over areas of western Washington, the Vale-Owyhee irrigated areas of eastern Oregon, the irrigated areas of the Yakima Valley, Washington, and representative areas in California. The areas selected for study in northern Idaho are representative of the better cut-over lands in the ponderosa and white pine regions of northern Idaho and northeastern Washington.

Miners were the first settlers to come into the area, about 1860. They were closely followed by the lumbermen and the livestockmen who

grazed their cattle on the prairies. Early agricultural settlement also occurred on the prairie lands. Agricultural development of the cut-over lands began about 1902 but it was relatively unimportant until after 1925 following the decline of timber employment, and the migration of settlers from other areas. Agriculture on the prairie lands is based largely on a cash-grain farming system, while on the cut-over lands livestock and dairy farming are most important.

The total inward migration from 1930 to 1938 in the ten northern Idaho counties was estimated at 34,000 people according to a survey conducted in the schools in the area. Twenty-six per cent of these were reported as farm families in 1939.

The school survey data indicate concentration of new settlement in or near the large towns and in cut-over areas, with little settlement occurring in the well-established farming (prairie) areas. These data also show that although some settlers have come from every state, one-third have come from points in the Northwest and one-third from the Northern Great Plains. Farm survey data show that 60 per cent of the farmers have come from the Midwest drought area.

Family characteristics of the new settlers are about the same as for all of the northern Idaho population. Practically all of the migrants are native white. Farm settler families average 4.3 persons as against 4 persons for all farm families. Ages are comparable except that there are 6 per cent more persons 55 years and over in the migrant group than in northern Idaho families, and a larger proportion of family heads in the middle age groups than for the population as a whole.

Of 150 settlers who located on farms between March 1929 and April 1938, 127 own or are purchasing their farms, 12 rent their farms and 11 own some land and rent additional land. Upon moving to northern Idaho, there was a general shift in tenure from farm renter or laborer to farm owner.

The principal beginning resources of the new settlers consisted of cash, machinery, livestock, and household goods. Their average net worth at time of settlement was \$934. Cash represented 47 per cent of the total assets of the settlers purchasing land but was only 22 per cent of total assets of the renters. Although the average cash resources were low, 35 per cent of the settlers had \$500 or more at the time they settled.

Settlers purchasing land acquired farms consisting primarily of unimproved cut-over land. Their farms had an average of only 4 cleared acres, and only 56 per cent of the farms had any improvements at time of settlement. Rented farms had an average of 31 cleared acres and all of them had improvements. The settlers paid an average of \$10 an acre for their farms. Twenty-two per cent paid cash at the time of purchase, and most of the remainder bought on purchase contracts, paying 10 per

cent down, the balance to be paid in 10 years at 6 per cent interest. Advantageous location with respect to work, relatives or friends was the principal influence in the settlers' choice of their particular farms. Good soil was a minor consideration in their choice.

For the year 1938, the family income of the 150 farm settlers averaged \$708. For the farm owners, family income was \$654, for renters \$1,014, and for owner-renters \$978. Off-farm income, most of which was from employment in forest industries, amounted to 47 per cent of the family income. Twenty-one per cent of the new settlers received public assistance, which amounted to 50 per cent of their total family income.

Surprising progress was shown in the annual increase in net worth, which averaged \$168 for owners, \$24 for renters and \$282 for owner-renters. Most of this increase resulted from increased value of improvements and increased value of land imputed to clearing. This, to some extent, explains the renters' relatively low net worth increase, since their farms were already improved and had larger crop acreages at time of settlement.

The average annual rate of clearing additional land was 1.7 acres per farm. At such a slow rate of clearing few farm units large enough to support a family will be developed during the present generation, since it appears probable that a minimum of about 60 acres of cleared land is necessary.

In 1938 the average new settler farm contained 16.2 acres of cleared land, of which 10.6 acres were in crops for harvest. Alfalfa hay utilized 38 per cent of the crop acreage with a yield of 1.6 tons per acre. Grain crops produced a very poor yield averaging only 9 bushels of wheat per acre and 11.5 bushels of oats. The average new settler had 1.5 horses, 4 cattle, 2 hogs, 1 sheep or goat, and 29 chickens. Even with this small amount of livestock the average farm did not produce enough feed to maintain them.

Levels of living were low. The homes were mostly rough log or frame buildings of three or four rooms. Sixty-nine per cent of the settlers had automobiles, 47 per cent had radios, and 38 per cent had electricity, but only 9 per cent had running water in the house and only 2 per cent had telephones.

The principal factors affecting 1938 income were the number of acres in crops, length of time settled, and amount of off-farm work. Settlers with 20 acres or more of crops had an average family income of \$832, of which only \$165 was from off-farm sources, as compared with a family income of \$621 of which \$425 was from off-farm sources, for settlers with less than 10 acres of crops. Larger crop acreages and incomes were associated with longer periods of settlement. In general, settlers with more off-farm work had larger total family incomes, but settlers earned \$500 or more from this source at the cost of failure to develop their farms as much as those who earned less.

Off-farm employment is principally supplied by the timber industry. Employment from this source is not likely to increase, and with future immigration, it is very likely to decrease. The major problem facing new settlers, therefore, is how to develop their farms rapidly enough so that a satisfactory income can be made from farm sources within a few years. Financial assistance to hire land clearing by modern methods appears to be a practical solution to the problem. By clearing land and putting it into production at the rate of 10 or 15 acres a year and at the same time building up productive livestock, within four or five years a farmer should be self-supporting without dependence upon off-farm work or public assistance. If the land is carefully selected and is comparable in quality with the better lands in the farms studied, investment in land clearing would be well justified. Long-term credit and low interest rates with provision for no payments of principal or interest during the first 4 or 5 years would appear to be necessary. Such arrangements as are now used to develop land under Government projects appear well justified for land clearing in cut-over areas.

INTRODUCTION

The Problem

During the decade of the 1930's, there was a great deal of settlement on cut-over lands in northern Idaho. The low cost of these lands and the opportunity to start farming with a small amount of capital appealed to many people who were unable to find employment elsewhere and who lacked sufficient capital to purchase land in developed farming areas.

According to the census, between 1930 and 1935 the number of farms increased 17 per cent in the 10 northern Idaho counties.¹ However, the farm acreage increased only 5 per cent, and the crop acreage only 0.4 per cent, indicating the undeveloped nature of the additional farms counted by the census. The average size of farm decreased from 262 to 228 acres, and the crop acreage per farm decreased from 114 to 95 acres. Some of the apparent decrease in size and increase in number of farms from the 1930 to the 1935 census was due to changes in census procedure rather than to absolute change.

Previous studies have given some information about the settlement in this area.² It is estimated that about one-half of the new farm

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- 1 Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone.
 - 2 Tjerandsen, Carl. Report of the Idaho Land Use Planning Section on "Current and Recent Rural Occupancy in Idaho," 34 pp., with supplement, U. S. Resettlement Admin., Moscow, Idaho, 1936-37, and Bell, Roscoe E., "The Immigration of Farm Families into Idaho, Oregon and Washington," 6 pp., Land Use Planning Section, Land Utilization Division, Resettlement Administration, Portland, Oregon, 1937.

settlers have located on unimproved logged-off land; about one-third have reoccupied abandoned land and the remainder have located on subdivided operating farms. Difficulty of clearing, reoccupancy of abandoned farms, and settlement on undeveloped land without adequate knowledge of its use-capabilities are serious obstacles to successful farming. Heavy demands for relief, poor living conditions, inadequate sanitation, and slow and arduous progress in clearing are some of the consequences to the settlers and to the communities in which they seek to gain a foothold. Land promotional activities have in the past encouraged, and still are encouraging, settlement on land unsuited for successful farming. In several northern Idaho counties probably 90 per cent of the total land area is suitable only for forest use. Regardless of the economic feasibility of settlement in northern Idaho, it appears likely that new settlers will continue to come. Public agencies that are concerned with the problems occasioned by this migration have recognized the need for an evaluation of the extent, location and character of migration, the probable consequences of such population movement, and the possibilities of successful reestablishment of the people in the Western States.

Plan of Study

In 1938 the Bureau of Agricultural Economics initiated a broad investigation of migration to the Western States. State-wide surveys of migration to Idaho, Washington, Oregon, California, and Arizona were made, and in addition several sample areas in which migration had occurred since 1930 were studied. The purposes of the broader surveys were to describe the extent and characteristics of the migration. The purposes of the sample area studies were to determine the economic situation and future prospects of the settlers. The studies are intended to provide a basis to guide public programs which might be adopted to aid new settlers.

Northern Idaho was selected for one of the detailed sample area studies because a large amount of new settlement has occurred on the cut-over land in this area, and very little was known about the new settlers' success in becoming permanent, self-supporting residents. A detailed study was made, in cooperation with the Idaho Agricultural Experiment Station, of 189 families who had settled in rural areas in Benewah and Boundary Counties. These counties were selected because of fairly heavy concentration of recent rural settlers. Reports were obtained from any such settlers in these counties that it was possible to contact and obtain records from within the period available for field work. Their approximate locations are shown in Figure 1. It is believed that they represent a reasonably satisfactory cross-section of recent settlers in northern Idaho cut-over areas.

As part of the broader studies a survey was made, in cooperation with the Farm Security Administration, in the schools of Idaho to determine the extent of migration; and the character and origins of families who had immigrated from 1930 to 1938. In this survey, pupils belonging

to families who had moved into Idaho from other states after January 1930 were asked to complete a brief questionnaire. While it is recognized that information from a population so selected would not be generally representative as regards age distribution and family composition, there is reason to believe that all occupational and social and economic groups among the incoming migrants were well represented. Special tabulations of the data obtained in this study for the 10 northern Idaho counties are used in this report.¹

The survey methods employed in the detailed study followed the usual procedure. New settlers were visited during the last week of December 1938 and the first two weeks of January 1939, by enumerators who obtained records from them. All but three of the records were obtained from families who had settled after April 1, 1930. Most of the settlers were on farms that had better than average cut-over land. Benewah and Boundary Counties were chosen for the field surveys because they are fairly representative of the soils, topography, and climate in northern Idaho and because concentration of new settlement in these counties made it easier to obtain adequate samples of settlement on cut-over farms.

THE AREA

Physical Features

The 10 counties of northern Idaho have areas of cut-over lands in the ponderosa pine and white pine regions where upland forest soils, mostly gravelly loams, silt loams, and clay loams predominate. Soils are extremely variable, but the land may be classified into three broad groups according to obvious differences: prairie, cut-over, and river-bottom land. The prairie land is adapted to a cropping system based on cash grain as the principal enterprise. The cut-over land is primarily adapted to legumes, hay, and feed grains. The bottom land is variously adapted to grain, hay, pasture, and intensive crops, depending on local variations in climate, drainage, soils, and protection from overflow.

Precipitation ranges from 14 inches to 30 inches depending upon elevation and location (Table 1). It is generally adequate for the adapted crops except in sandy or gravelly areas. The growing season ranges from 113 to 202 days, and there are frost-pocket areas susceptible to early frost and lower than normal winter temperature. The growing season is adequate for hay crops, but not for the maturing of grain crops in these limited areas.

In Bonner, Clearwater, and Shoshone Counties most of the agriculture is confined to cut-over land. Most of the agriculture in Idaho, Latah, Nez Perce, and Lewis Counties is on prairie land. The agriculture in Boundary, Kootenai, and Benewah Counties is on both bottomland and cut-over land. Kootenai and Benewah Counties also have some agriculture on prairie land (Figure 2).

¹ A separate report on the school survey study of migration in the Pacific Northwest is in preparation.

FIGURE 1

LOCATION OF RURAL SETTLERS INCLUDED IN CUT-OVER LAND SETTLEMENT STUDY, 1938-39

EACH DOT = ONE FAMILY

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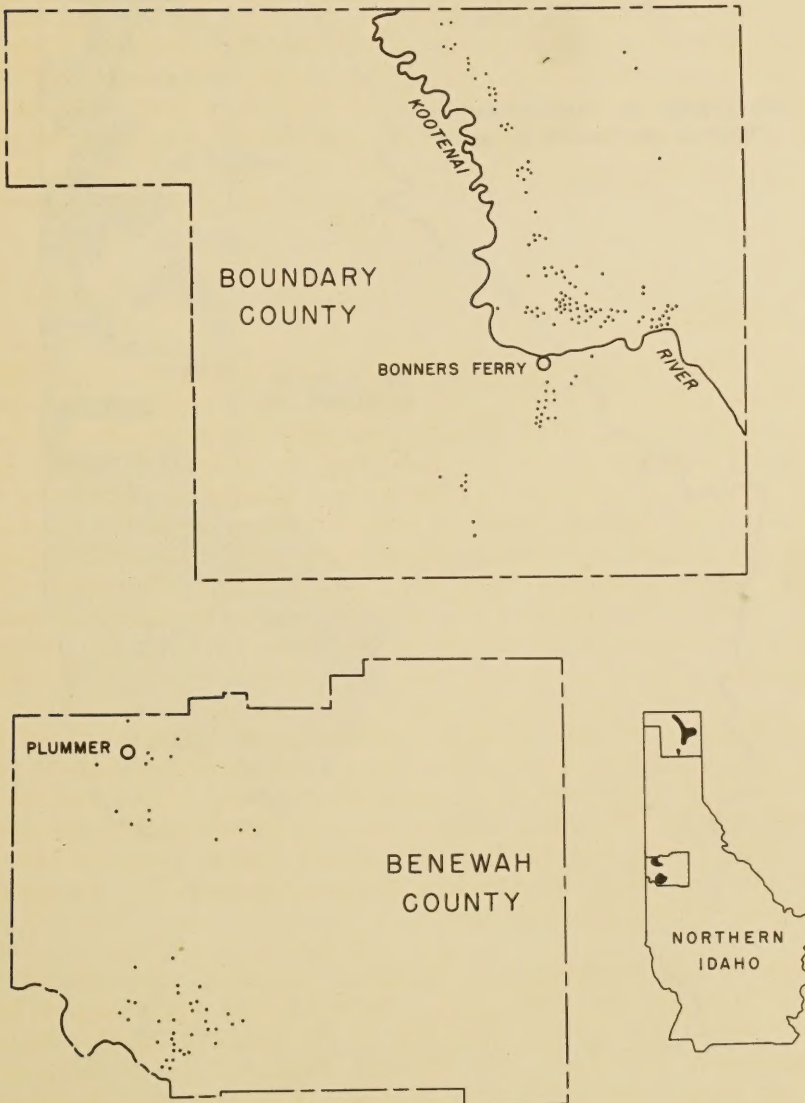


FIGURE 2

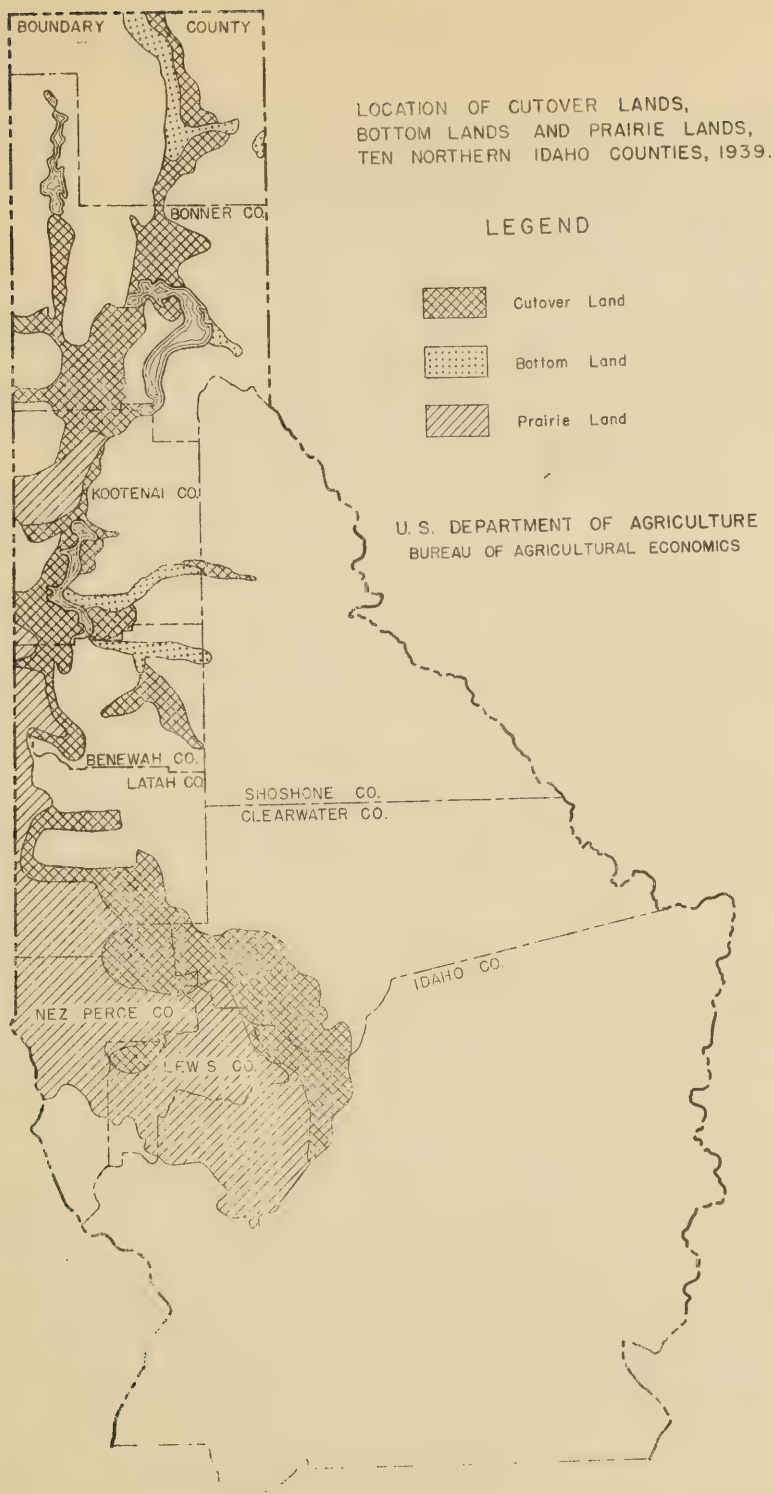


Table 1.- Average annual precipitation and growing season, and elevation, of specified weather stations in northern Idaho¹

Location of Station	Annual Precipitation	Growing Season	Elevation
	<u>inches</u>	<u>days</u>	<u>feet</u>
Porthill, Boundary County	19.45	141	1,665
Sandpoint, Bonner County	28.61	115	2,100
Coeur d'Alene, Kootenai County	24.01	146	2,157
Kellogg, Shoshone County	29.73	127	2,305
St. Maries, Benewah County	25.08	133	2,155
Moscow, Latah County	21.87	150	2,748
Orofino, Clearwater County	26.14	161	1,027
Lewiston, Nez Perce County	14.01	202	757
Nez Perce, Lewis County	18.82	113	3,082
Kooskia, Idaho County	22.86	151	1,261

¹ Averages from establishment of the stations up to and including 1939, compiled from climatic data of the U.S.D.A. Weather Bureau.

Boundary County is the northernmost county in the panhandle of Idaho. The agricultural land of the county is of two principal types, the "bench lands" bordering the Kootenai River, consisting of glacio-lacustrine soils, and the "bottom lands" through which the Kootenai River meanders north to Kootenai Lake. These bottoms are diked and drained, and consist principally of recent-alluvial and peat soils. The bench lands, where new settlement is occurring, were originally covered by fine stands of timber, including ponderosa pine, white pine, douglas fir, larch, cedar, and hemlock. Most of the timber had been cut by 1925, leaving large acreages of cut-over land supporting stands of second-growth timber and brush.

In Benewah County, new settlement has been on more recently cut-over lands, and logging is still being done. Settlement is taking place on upland soils formed in place and partly laid down by wind rather than glacial in origin. In neither Benewah nor Boundary Counties has recent settlement occurred on the best agricultural soil types. In Boundary County the bottom soils are held in large ownerships and are high priced as compared with the bench land soils. In Benewah County the prairie (Palouse) soils have been under cultivation a long time and are high priced compared with cut-over lands.

History of Development of Agriculture

The first settlement in northern Idaho was by gold miners about 1860. Then the value of large timber resources was recognized, and by 1880 the timber industry was in full swing. Agriculture followed the timber industry closely. The first agricultural development was on the

prairie areas in conjunction with livestock grazing. Agricultural development on the cut-over lands began in the early 1900's but was relatively unimportant until after 1925. It has been the result of two major influences. One principal influence has been the normal migration of farm families, seeking better economic opportunities, who found cut-over land in northern Idaho available to them at low prices. This migration has been augmented lately by settlers who, afflicted by drought in the Great Plains, were forced to seek opportunities elsewhere.

A second major factor has contributed to the development of cut-over lands for agriculture. Many families in communities established primarily because of the opportunities for employment in timber or mining industries, engaged in part-time farming to supplement their incomes and to enjoy better living conditions. A decline in available employment resulted in many of these families increasing the development of their cut-over land holdings into full-time farming enterprises.

The Northern Rocky Mountain Forest and Range Experiment Station has estimated that annual log production in northern Idaho reached a peak of 1,260 million board feet in 1925, declining to less than 400 million board feet between 1932 and 1934. In 1936 production rose to about 750 million board feet, but this is still only 60 per cent of the 1925 production. The logging and milling phases of the lumber industry in 1925 furnished the equivalent of year-round employment for almost 15,000 persons, giving direct and indirect support to about 35,000 people, but in 1936, they supplied the year-long equivalent of employment for only approximately 6,000 persons, 40 per cent of the 1925 estimates, and direct and indirect support to only about 18,000 persons, or one-half of the 1925 estimates.¹

Present Land Use

The total land area of northern Idaho is 13,500,000 acres, or roughly 21,000 square miles.² The Northern Rocky Mountain Forest and Range Experiment Station has classed 82 per cent as forest land and 18 per cent as non-forest land.³

The number of farms in northern Idaho decreased from 9,480 to 8,961 between 1920 and 1930, then increased to 10,847 in 1935. Average size of farm and cropland per farm increased from 1920 to 1930 and decreased in 1935 (Table 2).

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- 1 United States Dept. of Agric., Forest Service, Northern Rocky Mountain Forest and Range Experiment Station, Forest Statistics Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, Shoshone Counties, Forest Survey releases 6, 7, 8, 9, 10, 11, 12, 13, 14, 15. 10 vols. Missoula, Montana. 1937-38.
 - 2 Bureau of the Census, 1935 op. cit.
 - 3 U. S. Department of Agriculture, Forest Service, op. cit.

Table 2. Farms and Farm Land in Ten Northern Idaho Counties, 1920, 1930, and 1935¹

Item	Unit	1920	1930	1935
Farms	Number	9,480	8,961	10,847
Land in farms	Acres	2,249,361	2,349,465	2,477,185
Proportion of total land	Per cent	16.7	17.4	18.3
Land per farm	Acres	237.3	262.2	228.4
Total cropland	Acres	972,319	1,024,346	1,028,759
Proportion of cropland in farms	Per cent	43.2	43.6	41.5
Cropland per farm	Acres	102.6	114.3	94.8

1 U. S. Census of Agriculture - 1930, 1935.

Type of Farming

The 8,961 farms in northern Idaho were classified in the 1930 Census of Agriculture by type as follows: cash grain, 3,001; general¹, 1,570; abnormal², 1,158; dairy, 752; self-sufficing⁴, 696; crop specialty, 545; animal specialty, 327; fruit, 274; poultry, 207; stock ranch, 150; truck, 51; and unclassified, 210. The cash grain, general, and abnormal types of farming account for almost two-thirds of the total number of farms and crop acres.

Population

In 1930 northern Idaho had a population of 119,940. The urban population was 33,224, and rural, 86,716. Rural population consisted of 38,120 rural farm and 48,596 rural non-farm inhabitants. From 1930 to 1940 total population in these counties increased 13 per cent, to 135,408, according to preliminary 1940 census returns. Farm population had increased by 13 per cent in 1935, to 43,198; 1940 farm population figures are not yet available.

Ninety-five per cent of the total population in 1930 was either native born or foreign-born white. Only 13 negro families were listed. The remainder was not classified by race or color.

- 1 Where value of products from any one source is less than 40 per cent of value of all products.
- 2 Sub-types - Institution, part-time, boarding and lodging, forest products, horse farm. Ninety-two per cent of the farms in this type class were in part-time or forest products sub-types.
- 3 Where value of farm products used by operator's family was 50 per cent or more of the total value of all products.

In 1930, 47,663 people in northern Idaho were gainfully employed. Of these, 12,739, or 26.7 per cent were engaged in agriculture; 5,281, or 11.9 per cent in forestry; 4,657, or 9.8 per cent in extraction of minerals; and 24,986, or 51.6 per cent in other industries and occupations.¹

THE SETTLERS

Geographic Distribution

School survey returns were received from 2,162 families in northern Idaho who had moved to Idaho from other states from 1930 to January 1, 1939 (Figure 3). Returns were incomplete, but on the basis of the enumerated families, the total inward migration from 1930 to January 1, 1939 was estimated at approximately 34,000 people.

Of the families enumerated, in 10 northern Idaho counties, 38 per cent were in cities of 2,500 to 10,000 population. Rural areas, including towns of less than 2,500 population, received 62 per cent. Only 26 per cent of the heads of families enumerated were reported as farm operators or farm laborers in 1939. The question asked the children, "What does your father do right now?" may have classed some migrants, who were usually farm operators or farm laborers, in other temporary or part-time occupations at the time of enumeration.

Most of the farm families in the school survey in northern Idaho settled in or near more recently logged-off areas where cheap cut-over land was available for farming, and chances for supplementary income from employment in timber industry were better. The three principal cut-over counties (Bonner, Clearwater, and Shoshone) received 37 per cent of the total families enumerated, while the principal prairie counties (Idaho, Latah, Lewis, and Nez Perce) received only 26 per cent. Of the families enumerated who settled in rural areas, the cut-over counties received 40.5 per cent and the prairie counties, 15.5 per cent.

There was a progressive increase in the number of the families that had moved into northern Idaho in each of the years from 1930 to 1937, with a decrease in 1938 (Table 3). It is probable, of course, that a larger proportion of the people who arrived in the earlier years had left the area than of those who arrived in the later years. Figures for 1939 are incomplete, since the records were taken in that year and enumeration for the full year was not obtained.

Of the 189 families enumerated in the farm survey, 108, or 57 per cent, settled in the same year of their departure from the state of origin. Most common reasons for their choice or method of selecting

¹ U. S. Dept. of Commerce, Bureau of the Census. U. S. Census of Population, Reports for States with Statistics for Counties. 1930.

FIGURE 3

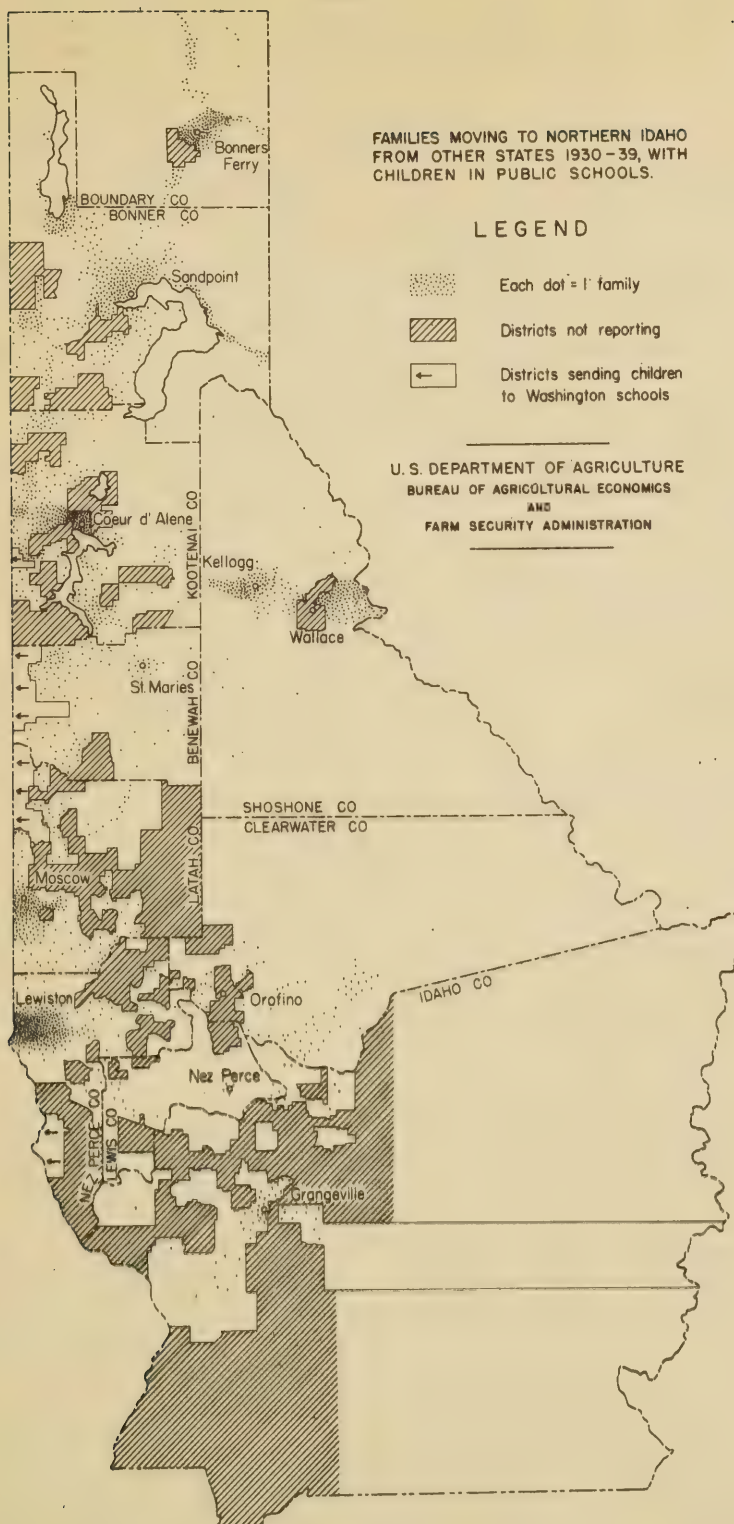


Table 3. Number of Families Enumerated in School Survey
by County and Year of Settlement

County	Year of Settlement										Un- known	Total
	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939		
Benewah	5	7	5	6	15	10	23	18	16	5	1	111
Bonner	20	23	27	29	56	80	72	75	76	8	4	470
Boundary	5	22	13	11	28	37	36	32	23	8	0	214
Clearwater	1	6	4	3	8	13	9	14	10	2	0	70
Idaho	3	2	7	6	11	2	10	4	6	0	0	51
Kootenai	14	22	28	32	51	54	92	89	57	11	13	463
Latah	12	13	14	13	28	27	30	32	34	8	3	214
Lewis	0	3	0	0	1	3	4	1	6	0	0	18
Nez Perce	13	16	26	22	28	26	44	44	50	10	4	283
Shoshone	13	8	6	14	14	31	70	81	22	7	2	268
Total	86	122	130	136	240	283	389	390	300	59	27	2162

1 Includes only first three months of 1939.

locations in which to settle were: exploration of opportunities before moving on; recommendations by relatives and friends who had already settled; moved in with relatives or friends and then chose their locations; moved into towns, then chose their farms. Generally those who selected farms before moving obtained the better places since they were not hurrying to avoid cash costs of maintaining families until the places were chosen. Furthermore, they probably arrived earlier and had more opportunity for selection of a home. The reasons given are those which the individuals reported in response to an enumerator's question, which may or may not have suggested to them certain types of response.

Although every state and three foreign countries were represented, 79 per cent of the settlers enumerated in the 10 northern counties in the school survey and 85 per cent of the settlers enumerated in the farm survey came from the 10 leading states of origin shown in Table 4.

In the school survey, 39 per cent of the families came from the Pacific region (Washington, Oregon, California, and Idaho), and 34 per cent from the Great Plains region (Montana, North Dakota, South Dakota, Colorado, and Wyoming).

Reasons for Coming West

The principal motivating reason for the settlers coming west was to obtain better economic opportunities. Crop failure and drought account for 53 per cent of the reasons given. Only 2.6 per cent of the settlers signified their desire to get off relief as their reason for coming west.

Table 4. Major States of Origin of Settler Families
in School and Farm Surveys

State of Origin	School Survey ¹				Farm Survey ²	
	Urban		Rural		All Rural	
	number	per cent	number	per cent	number	per cent
Washington	242	29.7	347	25.7	14	7.4
Montana	100	12.3	163	12.1	18	9.5
North Dakota	50	6.2	100	7.4	24	12.7
South Dakota	51	6.3	94	7.0	30	16.0
Nebraska	38	4.7	90	6.7	14	7.4
Oregon	53	6.5	62	4.6	3	1.6
Colorado	32	3.9	64	4.7	22	11.6
Idaho	38	4.7	44	3.3	22	11.6
Wyoming	31	3.8	50	3.7	8	4.2
California	25	3.1	42	3.1	6	3.2
Other states	153	18.8	293	21.7	28	14.8
All states	813	100.0	1,349	100.0	189	100.0

1 Residence in 1930.

2 Last place of residence before settling in northern Idaho.

The following typical statements illustrate the reasons given by the people themselves:

"The drought got us. We didn't have no feed for the stock so we sold them to the Government." (Tripp County, South Dakota, 1935)

"We had crop failures for three years running and no feed for the stock so we sold them to the Government. What we wanted was a place where it is green and we wouldn't dry out." (Knox County, Nebraska, 1934)

"I went broke on 25 cent wheat." (Whitman County, Washington, 1933)

"We were driven out by the drought. Had no crop for seven years and no feed for the cattle. We were paying \$200 taxes and \$240 interest. We wanted to get out of the dust bowl." (Roberts County, South Dakota, 1937)

"The country just dried up. In 1934 we had to pay \$26 a ton for hay clear from California." (Douglas County, Colorado, 1935)

"I didn't want to stay on relief back there. I wanted to find some place where I could make my own living." (Dunn County, North Dakota, 1936)

"Bad times, dust, and grasshoppers. All the neighbors left and the school closed down." (Lincoln County, Colorado, 1937)

"Nobody had any money to buy, and there was more stores than business. The drought took the country." (Storekeeper from Turner County, South Dakota, 1934)

"We lost our farm from the drought. They foreclosed us." (Washington County, Colorado, 1937)

"Six years of crop failure. We had to depend on relief, I wanted to get off relief." (Cheyenne County, Nebraska, 1936)

"I was working for \$16 a month on a farm. A fellow can't make it on that." (Gregory County, South Dakota)

Seventy-seven per cent of the new settlers came to northern Idaho upon the recommendations of friends or relatives who were already there, and because of advertisements of railroad and lumber companies. Although only 9 per cent of the settlers listed the availability of cheap land as their principal inducement, it is believed that this was the underlying reason for most of the settlement on cut-over land. The following statement is typical of why the settlers chose a particular area: "We came out Highway 30 and looked around in southern Idaho, and in Oregon and Washington, but the land was too high." The following answer was obtained from a man who settled in Benewah County but who was originally headed for Boundary County: "Well, sir, us fellows [the narrator and three neighbors from Tripp County, South Dakota] all chipped in in 1934 and decided to come out and have us a look around. We'd been reading about this cut-over land. Well, we came over the mountain from Moscow, and we see all this cut-over land here and I says, 'There she is.'" The group stopped and talked to a local service station keeper, who extolled the opportunities and told of places which could be bought, with the result that the four have now settled in this community, and none has ever gone on to Boundary County.

Family Characteristics

The new settler families were slightly larger and had larger proportions of persons in lower age groups than the average in northern Idaho. Families of six or more made up 28 per cent of the settler group and 15 per cent of the total northern Idaho group. (Table 5) It must be considered, however, that the settler group is limited to farm families, and the northern Idaho group includes all families. Average size of families is as follows: settler families, 4.3 persons per family; northern Idaho families, 3.9 persons per family; northern Idaho farm families, 4 persons per family.

The age of the new settlers is comparable with that of northern Idaho population except in the older groups (Table 6). Persons of 55 years and over constitute 9 per cent of the settler group as against 15 per cent of the northern Idaho rural farm population, and 14 per cent of the general population.

Table 5. Variation in the Size of Families Included in Farm Survey and of All Families in Northern Idaho

Size of Family	New Settlers in Farm Survey		All Families in Northern Idaho ¹	
	persons	number per cent	number per cent	
1		14 7.4	4,675 15.0	
2		31 16.4	6,995 22.5	
3		32 16.9	5,973 19.2	
4-5		59 31.2	8,705 28.0	
6-7		35 18.5	3,359 10.8	
8-9-10		13 6.9	1,248 4.0	
11-over		5 2.7	161 0.5	
All Sizes		189 100.0	31,116 100.0	
Average size of family (persons)				
All families		4.3	3.9	
Farm families		4.3	4.0	

¹ U. S. Census of population, 1930.

Table 6. Age Distribution of Persons in 189 New Settler Farm Families Compared with That of Northern Idaho Rural Farm Population and General Population¹

Age	Persons in New Settler Families-1938		Northern Idaho ²			
			Rural Farm Population		Total Pop.	
years	per cent	cumulative per cent	per cent	cumulative per cent	per cent	cumulative per cent
Under 5	8.4	8.4	9.3	9.3	8.9	8.9
5-9	12.1	20.5	10.6	19.9	9.9	18.8
10-14	12.3	32.8	11.6	31.5	10.0	28.8
15-19	10.6	43.4	10.2	41.7	9.2	38.0
20-24	6.6	50.0	7.6	49.3	8.3	46.3
25-29	6.7	56.7	5.7	55.0	7.3	53.6
30-34	7.3	64.0	5.7	60.7	6.8	60.4
35-44	13.8	77.8	12.3	73.0	13.9	74.3
45-54	9.8	87.6	11.6	84.6	11.7	86.0
55-64	6.1	93.7	8.9	93.5	8.0	94.0
65-74	2.8	96.5	4.9	98.4	4.4	98.4
75-over	0.5	97.0	1.6	100.0	1.6	100.0
Unknown	3.0	100.0	0.0 ³	100.0	0.0 ³	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

1 820 persons in new settler families; 38,120 in northern Idaho rural farm population; 119,940 in total population.

2 U. S. Census of Population, 1930.

3 Less than .1 per cent.

A larger proportion of the heads of families of the new settler group is in the middle-age brackets than is noted for the state as a whole. The age groups from 35 to 54 comprise 57 per cent of the settlers as compared with 49 per cent for the whole of Idaho. About one-half of the heads of families of each group are over 50 years of age. Most of the settler group, however, is facing the slow, strenuous task of clearing and developing cut-over land for agriculture. Outside employment for the older heads of the settler families will be difficult to obtain when, with age as a handicap, they seek new jobs.

Occupations

The proportion of workers engaged in agriculture enumerated in the school survey is comparable with the proportion of workers enumerated in the northern Idaho census, but is twice as high as in the cut-over counties (Table 7). However, 1930 census figures are used, and since that time most of the inward migration has been to the cut-over areas. Probably later census statistics will show that the proportion of gainfully employed persons in agriculture in the cut-over counties is considerably larger than the 12.4 per cent in 1930.

Table 7. New Settlers Compared with All Gainfully Employed Persons as to Proportion Engaged in Agriculture, Northern Idaho

Group	Number	Per Cent Engaged in:		
		Agriculture	Non-agricultural Occupations	Total
Heads of families included in school survey who reported occupation ¹	1,815	26.0	74.0	100.0
Gainfully employed persons in 10 northern Idaho counties, 1930 ²	47,663	26.7	73.3	100.0
Gainfully employed persons in 3 cut-over counties (Bonner, Clearwater, Shoshone) 1930 ²	16,561	12.4	87.6	100.0

1 Occupation in 1939.

2 U. S. Census

The occupations before coming to northern Idaho of the 189 settlers included in the farm survey were as follows:

Farmers	113
Farm laborers	18
Professional	5
Business proprietors, managers, or officials	4
Skilled labor	13
Other laborers	33
Not specified	<u>3</u>
Total	189

THE SETTLEMENT PROCESS

Of the 189 settlers in northern Idaho from whom data were obtained, there were 150 who settled on farms between April 1, 1929 and April 1, 1938, and from whom complete schedules of their resources at time of settlement, and their resources, income, and expenses in 1938, were obtained. The information obtained from this group of 150 settlers is the basis for the analysis of the settlement process and progress of settlers in the remainder of this report.

Of this group of 150 new farm settlers, 127 own, or are purchasing, all of the land in their farms, 12 are renting their farms, and 11 own some land and rent additional land.

Beginning Resources

The settlers had widely varying resources when they arrived in northern Idaho to begin their new venture. Their net worth averaged \$934 (Table 8), but ranged from minus \$1,950 to plus \$6,450. The assets which the settlers brought with them consisted of machinery and equipment, automobiles, livestock and poultry, household goods, and cash, with a scattering of miscellaneous items including agricultural conservation benefit payments and paid-up insurance policies. Of their \$1,094 average total assets, \$489, or nearly half, was reported as cash. Only 12 settlers, or 8 per cent, reported no cash at time of settlement, while one man had \$5,000 cash. Fifty-two settlers, or 35 per cent, reported that they had \$500 or more when they arrived in Idaho to settle.

Liabilities averaged \$160 per settler, consisting of feed and seed loans, a few mortgages, and various miscellaneous obligations.

Many settlers shipped tools and livestock in immigrant cars or brought them out on their farm trucks or trailers. However, the kind of farm machinery that was well adapted to use in the Plains States is generally poorly adapted to the small-scale type of farming practiced on the cut-over lands of northern Idaho. Those who shipped livestock

Table 8. Average Resources of Settlers at Time of Settlement¹

Item	Tenure Status as of January, 1939			
	Owners	Renters	Owner-renters	Total
Number of settlers	127	12	11	150
<u>Assets at time of settlement:</u>	Dollars	Dollars	Dollars	Dollars
Real property ²	43	0	0	37
Livestock & poultry	92	359	101	114
Machinery & equipment	101	156	327	122
Automobile	137	116	95	132
Household goods	115	285	159	132
Cash	460	264	1068	489
Other assets	76	14	49	68
Total assets	1024	1194	1799	1094
<u>Liabilities at time of settlement:</u>				
Federal Land Bank loans	43	0	0	37
FSA loans	5	0	0	4
Feed & seed loans	47	94	127	57
Doctor & hospital bills	33	26	0	30
Other bills	2	0	0	2
Other liabilities	31	59	0	30
Total liabilities	161	179	127	160
Net worth(assets less liabilities)	863	1015	1672	934

¹ Prior to acquisition of land in northern Idaho.

² Value assumed to be equal to outstanding Federal Land Bank loan.

fared better, since the livestock found a ready market in the area or was capable of producing income on the farms, whereas machinery was often difficult to dispose of or to put to advantageous use on the small fields usually found on the cut-over farms.

Changes in Tenure Status

In many cases settlement on cut-over land has meant a shift from farm tenant or laborer status to farm owner status. Of the 150 settlers, 37 were farm owners before moving to northern Idaho, 11 were owner-renters, 41 were farm tenants, 16 were farm laborers, and 45 were in non-farming occupations. Of the 138 settlers who have purchased or are purchasing land, 70 were farm tenants or farm laborers in their former locations. On the other hand, of the 12 settlers who are now renting their farms, 3 were farm owners before coming to northern Idaho. The shifts from renter or laborer to farm owner have not necessarily involved an improvement in economic status.

Types of Land and Farms Obtained

Farms on which the settlers located consisted largely of undeveloped cut-over land. Many settlers acquired completely raw land, others obtained partly developed farms, and a few purchased or rented more completely developed farms. The soils are predominantly rolling upland types subject to erosion unless carefully handled. Because of the original forest cover of these soils, a nitrogen and organic matter deficiency has resulted, and farming practices to build up these constituents and combat erosion must be followed.¹

From soil and land classification maps of the areas in which the settlers are situated, it has been estimated that for northern Idaho as a whole only about half of the newly settled land can be classed as good cropland, the other half being of doubtful value for cultivation or definitely non-agricultural. However, settlers' own estimates that 78 per cent of their land is suitable for cultivation may not be overly optimistic since these records were taken in areas which are generally somewhat better than average. It appears probable that in many cases settlers have obtained and are laboriously clearing land of doubtful value.

The average size farm obtained by the 150 settlers was 98 acres (Table 9). The 12 rented farms averaged 126 acres as compared with 90 acres for the owners and 156 acres for the owner-renters. The acreage of cultivable

¹ This can best be accomplished by summer fallowing after clearing to destroy the injurious effects of forest debris; by raising legumes to supply nitrogen to the soils, with application of gypsum to encourage their growth; by practicing a diversified system of farming in which legumes should occupy about one-half of the cleared portion of each farm; and by maintaining sufficient livestock on each farm to consume most of the legumes raised. (See McDole, G.R. and Christ, J.H., "Farming Practices for Cut-Over Lands of Northern Idaho." Idaho Agricultural Experiment Station Bulletin No. 136, 1925, Moscow, Idaho.)

Table 9. Type of Land and Purchase Price of Farms Obtained
by Northern Idaho Settlers

Item	Owners	Renters	Owner-renters ¹	Total ¹
Number of settlers	127	12	11	150
	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
Cultivable crop land per farm	4	33	30	8
Cleared pasture (seeded)	0.4	0	0	0.3
Uncleared pasture	47.9	68.1	73.2	51.5
Other land	37.7	24.9	52.8	38.2
Total farm area	90	126	156	98
	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>	<u>Dollars</u>
Purchase price of farm	821	-	1,567	880
Purchase price per acre	9	-	15	10
Value of improvement per farm	43	-	116	28
Down payment per farm	190 ²	-	304 ³	199 ^{2 3}

1 Purchase price, improvements and down payment only for land owned or under purchase by settlers, including 107 acres per farm for owner-renters.

2 Excluding 27 owners who paid cash in full.

3 Excluding 3 owner-renters who paid cash in full.

cropland was 8 acres per farm with 0.3 additional acres of cleared pasture land. The renters had 33 acres of cultivable cropland and the owner-renters 30 acres as compared with an average of only 4 acres for the owners at time of settlement. As has been shown above, the renters and owner-renters had more resources at the time of settlement, which doubtless was a factor in their being able to obtain larger and better developed farms. Eighty-three settlers obtained less than one acre of cleared land at the time of settlement.

Improvements on the farms obtained by the settlers varied widely. Forty-four per cent of the purchasers obtained entirely uncleared cut-over land with no improvements; 13 per cent obtained no cleared land with some improvements; and 43 per cent obtained some cleared land and improvements usually consisting of a 1 or 2 room house and a barn of frame or log construction. All of the renters obtained improvements with their places.

Generally new communities have not been formed, settlement being interspersed among already existing farms. This has enabled the new settlers to take advantage of such already existing public services as schools and roads, and has doubtless made possible better living conditions than if settlement had been in entirely new and undeveloped areas. To the ex-

tent that they have settled on suitable land that can support payment of taxes for necessary public services, the increased settlement in previously sparsely-populated areas increases the tax base and improves the general living and social conditions in such areas.

Land Purchase Prices and Terms

The new settlers paid an average of \$880 for their farms, or \$10 per acre, (Table 9), although individual purchase prices ranged from \$1.50 to \$83 per acre, including improvements. Only 30 settlers out of the 138 purchasing land paid for their land in full at time of purchase; the remainder made down payments averaging \$199 and ranging from \$15 to \$1,400. One-hundred-two of the purchasers bought their land on purchase contracts ranging from 1 to 40 years, averaging 8 years. The most common form of contract called for a 10 per cent payment down with 10 years to pay at 6 per cent interest. Sixty-six per cent of the purchasers obtained farms from other individuals, 21 per cent purchased on contract, 6 per cent obtained deeds from lumber companies, and the remainder purchased from banks, the state, and the county. Lumber companies were the principal vendors of the more recently logged-off land, but in previously logged-off areas, much of the land was purchased by individuals and was held without improvements until sold to new settlers during the past decade.

Few of the purchase contracts contained provisions for compensation for improvements made to property if the settlers were dispossessed, but vendors were reported as having been very fair in this respect. When a new settler purchased a previous settler's contract, he usually paid an agreed price for improvements and payments already made, then continued to pay the balance of the contract price to the original vendor.

While the settlers with substantial amounts of cash could have chosen either to make relatively large down payments or to purchase farms outright, they tended to make modest down payments and to use the remaining available cash for living and operating expenses. In general those with the most cash contracted to buy the most expensive farms, although one settler with no cash on arrival contracted to buy a farm for \$2,250, giving \$125 worth of livestock as down payment.

Reasons for Choosing Specific Farms

The reasons given by settlers for choosing their particular places are shown in Table 10. They vary widely, and are not subject to precise classification. Advantageous location with respect to work, relatives, or friends exercised a strong influence in the settlers' choice of their farms. Good soil or potential productivity was stated by only 5 per cent of the settlers as having determined their choice of farms. A cheap place on which to get started ranks second to advantageous location as influencing choice, while real estate agents were cited as the major influence in the choice of only 11 per cent of the settlers. The following case is illustrative of the irrational nature of some of the choices and also the role of the real estate agent. X and his wife came to Bonners Ferry to attend the funeral of the

wife's father. X got a temporary job and one day fell in with a local real estate man at a beer hall. The result, as put by the wife, was "The first think I knew, we had a stump ranch." Since some of the settlers relied on friends or relatives to obtain their places for them and bought "sight unseen," it is not surprising that some felt they had been bilked. On the whole, however, they seemed to feel that they had chosen wisely and were satisfied with their choices. In general, it can be said that the choice of particular farmsites was not greatly influenced by informed considerations of soils or productivity, but that a low down-payment and proximity to friends or relatives generally exercised the major influence.

Table 10.- Reasons given by settlers for choosing their farms.

Reason for choice	Owners	Renters	Owner-renters	Total	
	Number	Number	Number	Number	Per cent
Advantageous location	43	7	5	55	36
Cheap land	39	2	1	42	28
Influence of real estate agent	14	0	2	16	11
Good water	9	0	0	9	6
Good soil	6	0	1	7	5
No reason given	16	3	2	21	14
Total	127	12	11	150	100

THE SETTLER'S PROGRESS

Income in 1938

In the year 1938 the total family income of the settler group averaged \$708 per family, including the value of farm products used (Table 11). This is the cash or cash equivalent available for the family living and debt repayment from all sources after farm operating expenses, interest payments, and depreciation of buildings and equipment have been deducted. Family incomes ranged from minus \$46 to plus \$2,275.

Receipts from farm products sold or on hand at the end of the year totaled \$311 per farm, of which livestock and livestock products amounted to \$150, wood products \$99, and crops \$62. In addition the farm products used by the family, including an estimated rental value of the dwelling and of the fuel used, amounted to \$189 per farm. These are not net amounts available for family living and debt payment, however, since most of the farm expenses of \$212 per farm are chargeable to them.

Table 11. Settlers' Average Receipts and Expenses Per Farm in 1938

Item	Owners	Renters	Owner- renters	Total
Number of settlers	127	12	11	150
	Dollars	Dollars	Dollars	Dollars
<u>Receipts:</u>				
Crop sales	9	22	54	13
Crops on hand end of year	35	94	152	49
Livestock products	67	109	206	81
Livestock net increase	58	85	174	69
Wood products	102	87	90	99
Off-farm work	296	510	476	330
Public assistance	58	40	0	48
Other off-farm receipts	48	2	8	42
Total receipts	673	949	1,160	731
<u>Farm expenses:</u>				
Labor	11	5	4	10
Feed and seed	74	81	142	80
Automobile and truck	40	49	74	43
Hauling and machine work	13	32	40	16
Taxes	14	0	27	14
Interest	15	1	43	16
Depreciation	14	17	37	16
Rent	0	32	47	6
Other	9	20	18	11
Total farm expenses	190	237	432	212
Net family cash income ¹ (Receipts less Expenses)	483	712	728	519
Value of farm products used	171	302	250	189
Total family income (net cash income plus value of pro- ducts used.)	654	1,014	978	708

¹ Includes ending crop inventory and livestock inventory increases.

Receipts from off-farm work, public assistance, and other off-farm sources amounted on the average to more than one-half of the total family income. In other words, off-farm sources of income were more important to the average settler than the net receipts from his farm, even considering the value of farm products, including dwelling and fuel supply, used by the family. There was wide variation between different farms in the amount of off-farm income, as will be brought out later.

Feed and seed purchased amounted to \$80 of the \$212 total expenses per farm. Automobile and truck expense was the next largest item, \$43 per farm. This was for the expense chargeable to the farm business and does not include the personal or pleasure use of automobiles by the family. Very little labor was hired, only \$10 worth per farm on the average, and taxes and interest payments were low.

Public assistance, including Works Progress Administration, Civilian Conservation Corps and National Youth Administration employment, and direct relief, was not as large, on the average, as many might expect, averaging only \$46 per farm. Thirty-two families, or 21 per cent, received income from these sources, amounting to \$227 per family.

Renters' and owner-renters' family incomes were \$1,014 and \$978, respectively, as compared with \$656 for owners. The larger incomes of renters and owner-renters resulted from both larger farm receipts and more off-farm work. The owners had an average of 6.4 acres of crops per farm; the renters, 33; and the owner-renters, 33.

Farm Development

The settlers' progress in farm development has been slow. The average increase in cultivable land since settlement was 6 acres, or 1.7 acres a year. (Table 12). The owner-renters had cleared an average of 13 acres per farm in an average period of settlement of about 3.5 years as compared with only 5 acres cleared by the owners in about the same length of time, doubtless reflecting the larger financial resources of the owner-renters. At the owners' average annual clearing rate of only 1.4 acres, over 11 years would be required to clear a farm of 20 acres and the estimated average potential cropland of 70 acres would require 47 years to clear. Twenty-two per cent of the settlers showed no increase in cleared land; 29 per cent had a total increase of 0.1 to 2.9 acres, and 49 per cent, three acres or more.

Methods of clearing varied from grubbing with axe and shovel at low cash costs to pulling stumps with track-type tractors at relatively high cash costs. No specific information can be given as to the cost of clearing done by the settlers because of various clearing conditions and methods of clearing used, and because of the large proportion of unpaid family labor used. Many settlers have been unable to clear much land because they could not obtain credit to finance clearing operations. The rehabilitation program of the Farm Security Administration has been the principal source of credit for the new settlers able to qualify. It has, however, been

Table 12.- Type and Value of land and improvements of farms
of northern Idaho settlers, January 1939

Item	Unit	Owners	Renters	Owner- renters ¹	Total ¹
Number of settlers		127	12	11	150
<u>Average per farm</u>					
Crops	Acres	6.4	33.0	33.0	10.6
Other cropland ²	Acres	2.6	1.0	10.0	3.4
Cleared pasture (seeded)	Acres	2.4	1.2	0.3	2.2
Uncleared pasture	Acres	45.9	66.9	72.9	49.6
Other land	Acres	32.7	23.9	39.8	32.2
Total farm area	Acres	90	126	156	98
Land cleared since settle- ment, per farm	Acres	5.0	1.0 ³	13.0	6.0
Average period of settle- ment	Months	43.0	23.0	41.0	42.0
Annual rate of clearing	Acres	1.4	0.5	3.6	1.7
Value of land and improve- ments, per farm	Dollars	1265.0	-	2330.0	1350.0
Value per acre	Dollars	14.0	-	22.0	15.0
Increased value of farm since settlement	Dollars	444.0	-	763.0	470.0
Value of improvements per farm	Dollars	301.0	-	566.0	322.0
Increased value of improve- ments since settlement	Dollars	258.0	-	450.0	294.0

¹ Value of land and improvements only for land owned or under purchase by settlers, including 107 acres per farm for owner-renters.

² Fallow, now seeding, etc.

³ Three renters cleared land--one as payment of rent, one who must clear a specified amount in order to purchase, and one who cleared while purchasing, then discontinued his contract and rented the farm.

unable to assist many of them with loans for land clearing, because in order to qualify for standard loans they must have possession of a productive farm capable of supporting a family and repaying the loan on the basis of an approved farm plan. This would eliminate all those who have had to depend on supplementary off-farm sources for most of their living. In order to meet this problem, small loans for the purchase of blasting powder were made to settlers in northern Idaho, chiefly in Boundary County. In that County, 31 settlers who had powder loans cleared an average of 2.9 acres each in 1938 as compared with only 1.4 acres cleared by 73 settlers who did not have powder loans. The average powder loan amounted to \$85. The exact value of the powder loan program cannot be determined, however, because other factors such as number of family workers, horses, power machinery and individual financial resources used by the settlers affected rates of clearing, and many of the settlers had combinations of these factors which made it impossible to determine the importance of any single factor in land clearing. The significant fact remains that regardless of resources used, the average annual rate of land clearing was low.

It was estimated that the purchasing settlers had increased the value of their farms by \$470, of which two-thirds was from increased value of improvements and one-third from increased value of land through clearing. Ninety-six per cent of them reported having made improvements on their places at an average cash cost of \$172. Of these, 7 per cent had spent \$500 or more in cash, and 51 per cent had spent less than \$100 cash. Cash costs of building are relatively small where logs and sawmills are numerous. Settlers may haul logs from saw timber on their places, have it sawed, and pay for the sawing by hauling additional logs.

In general, dwellings reflect the housing levels frequently found in newly settled areas. The typical dwelling has four rooms, an unfinished interior, log or rough board siding, is unpainted, and has a shake (split shingle) roof. The four rooms are kitchen, living room, and two bedrooms. Home conveniences were listed in the following order: sewing machines, 66 per cent; radios, 47 per cent; washing machines, 47 per cent; electricity, 38 per cent; running water in houses, 9 per cent; baths, 2 per cent; and telephones, 2 per cent. Sources of domestic water were wells, 40 per cent; hauling from elsewhere, 33 per cent; and springs, 27 per cent. Only 69 per cent of the settlers had automobiles.

Farm Organization

As previously stated, the new settler farms contained an average of 16.2 acres of cleared land, of which 10.6 acres were in crops exclusive of cultivated pasture, summer fallow, and new seedings from which no returns were obtained. Of the several crops grown, alfalfa hay utilized 38 per cent of the total crop acreage. Crops per farm and their per-acre yields were as follows: alfalfa hay, 4 acres, 1.6 tons; grain hay, 2.1 acres, 0.9 tons; wheat, 1.8 acres, 8.6 bushels; other hay, 0.7 acres, 0.9 tons; oats, 0.6 acres, 11.5 bushels; and potatoes, 0.4 acres, 32.8 bushels. The production of other crops utilized an average of 1 acre per farm.

These usually consisted of barley, berries, orchards, miscellaneous truck crops, and from one-eighth acre to one acre of garden for home use.

The low average crop yields obtained are the result in part, no doubt, of the planting of crops on raw land and of the inexperience of the new settlers, but it is believed that they also reflect the fact that many of the settlers have located on poor land that is not suited to agricultural use and that will not produce satisfactory crop yields.

The average numbers of livestock per farm were as follows: Horses, 1.5; cattle, 4.0; hogs, 2.1; sheep and goats, 0.9; and poultry and rabbits, 29.0. It is obvious that with a total production of only 9 tons of hay and 25 bushels of grain, present livestock could not be maintained by the farm and the settlers would need to increase their cropland to maintain even the livestock needed for most of their family living. Purchased feed was an important item in farm expenses.

Present Resources

The settlers have increased their net worth by an average of \$599 since settlement, or at the rate of \$172 per year (Table 13). The increase is represented principally by farm improvements, livestock and crop inventories, and machinery and equipment.

The increase in net worth of the renters averaged only \$24 annually, as compared with \$168 for the owners and \$282 for the owner-renters, in spite of the fact that the renters apparently receive a somewhat higher total family income, as has been shown.

Settlers purchasing land had an average equity in their farms of 55 per cent in 1938. Thirty-four per cent of them had a 100 per cent equity, as compared with only 22 per cent who paid all cash at the time of purchase. The average balance due on farm purchase price was \$398 per farm. Twenty-two per cent of the settlers reported difficulty in meeting their payments.

Commercial bank loans averaged \$49 per settler, while loans from the Farm Security Administration amounted to only \$30 per settler. As has been stated, most of the settlers were not eligible for Farm Security Administration loans, because of inadequate farm units.

FACTORS AFFECTING PROGRESS

Factors that appear to have an important relation to the new settler's progress are size of farm in terms of crop acreage, the length of time settled, and the amount of off-farm work.

Table 13. Average Resources of Farm Settlers
in Northern Idaho, December 1938

Item	Owners	Renters	Owner- renters	Total
Number of settlers	127	12	11	150
	Dollars	Dollars	Dollars	Dollars
<u>Assets:</u>				
Real property	1,265	0	2,330	1,242
Livestock and poultry	240	410	570	278
Crops	37	125	147	53
Machinery and equipment	171	298	635	215
Automobile	108	57	108	104
Household goods	162	283	187	173
Cash	47	45	22	45
Other assets	72	6	29	63
Total assets	2,102	1,224	4,028	2,173
<u>Liabilities:</u>				
Land contract	365	0	685	359
Federal Land Bank loans	47	0	0	40
F.S.A. loans	25	5	113	30
Commercial bank loans	46	12	127	49
Feed and seed loans	49	94	127	58
Doctor and Hospital bills	40	35	5	37
Other bills	19	15	15	19
Other liabilities	48	0	109 ¹	48
Total liabilities	639	161	1,181	640
Net worth (assets less liabilities)	1,463	1,063	2,847	1,533
Increase in net worth since settle- ment (dollars)	600	48	1,175	599
Average period of settlement (months)	43	23	41	42
Average annual increase in net worth (dollars)	168	24	282	172

¹ One settler purchased a tractor--\$1200.

Size of Farm

Of the 127 owners, 99 had less than 10.0 acres of crops, 18 had 10.0 to 19.9 acres, and only 10 had 20 or more acres (Table 14). The settlers with 20 acres or more of crops had larger family incomes and had increased their net worth more rapidly than those with smaller farms, despite the fact that the settlers on the smaller farms had more off-farm work and received more public assistance. The settlers with more than 20 acres of crops received a larger income, chiefly from their farms, than the average settler received from all sources.

The settlers with 20 or more crop acres cleared an average of 3.0 acres of land per farm in 1938 in comparison with 1.6 acres for those with fewer than 10 acres, which was made possible at least partly by the larger incomes received from the larger farms. The settler with insufficient crop acreage not only receives a smaller income for his living, but is handicapped by his lack of income in clearing additional land with which to increase his income.

The 12 renters and 11 owner-renters, with an average of 33 acres of crops, as has been shown (Table 11) had total family incomes of \$1,014 and \$978 compared with the average family income of \$832 received by the 10 owners with more than 20 acres of crops, averaging 28 acres. The renters and owner-renters, however, had considerably more off-farm employment.

Period of Settlement

Of the 127 owners, 54 had settled since April 1, 1936, giving them not more than 2 full crop-seasons on their farms, 42 had been settled for 3 or 4 full crop-years, and 31 for 5 to 9 crop years (Table 15). Those settled for longer periods had 11.3 acres of crops per farm as compared with 4.7 acres for the more recent settlers, and consequently they received larger returns from their farms. They also obtained more off-farm work, on the average, and, rather surprisingly, received a larger average amount of public assistance. This was received entirely by 5 families who, even though they had been settled for more than 5 years, had made little progress in developing their farms, and had obtained insufficient private employment for their support.

Off-Farm Employment

Of the 127 settlers who owned their farms, 25 received \$500 or more during the year from off-farm employment, 56 received from \$100. to \$499, and 46 less than \$100, many of them nothing at all (Table 16). Those receiving more than \$500 had average family incomes of \$1,104, nearly twice that of the other owners. It should be noted, however, that even though they had been settled for an average period of nearly 4 years, they had increased their crop acreage to only 3.5 acres, and their amount of land

Table 14. Relation of Crop Acreage to Income and Progress of Settlers (127 owners)

Item	Unit	Acres of Crops			
		Under 10	10 - 19.9	20 & over	All
Number of settlers	Number	99	18	10	127
Cropland per farm	Acres	2.9	13.7	28	6.4
Average period of settlement	Months	40	51	57	43
<u>Receipts:</u>					
Crops and livestock	Dollars	95	267	644	169
Wood products	Dollars	119	51	114	102
Off-farm work	Dollars	310	311	134	296
Public assistance	Dollars	62	46	31	58
Other	Dollars	53	52	0	48
Total receipts	Dollars	639	727	923	673
Total farm expenses	Dollars	178	191	308	190
Net family cash income ¹ (receipts less expenses)	Dollars	461	536	615	483
Value of farm products used	Dollars	160	214	217	171
Total family income (Net income plus value of products used)	Dollars	621	750	832	654
Total increase in net worth	Dollars	494	750	1,390	600
Annual increase in net worth	Dollars	148	176	293	168
Land cleared in 1938	Acres	1.6	2.9	3.0	2.0

¹ Includes ending crop inventory and livestock inventory increases.

Table 15.- Relation of period of settlement to
income and progress of settlers
(127 owners)

Item	Unit	Date Settled			
		Apr.'36 to Mar.'38	Apr.'34 to Mar.'36	Apr.'29 to Mar.'34	All
Crop years since settlement	Years	1-2	3-4	5-9	1-9
Number of settlers	Numbers	54	42	31	127
Average period of settlement	Months	24	44	75	43
Cropland per farm	Acres	4.7	5.1	11.3	6.4
<u>Receipts:</u>					
Crops and livestock	Dollars	115	148	304	169
Wood products	Dollars	111	69	121	102
Off-farm work	Dollars	286	287	327	296
Public assistance	Dollars	38	64	82	58
Other	Dollars	44	47	58	48
Total receipts	Dollars	594	615	892	673
Total farm expenses	Dollars	177	156	255	190
Net family cash income ¹ (receipts less expenses)	Dollars	417	459	637	483
Value of farm products used	Dollars	154	175	194	171
Total family income (cash in- come plus value of products used)	Dollars	571	634	831	654
Total increase in net worth	Dollars	271	575	1,209	600
Annual increase in net worth	Dollars	136	157	193	168
Land cleared in 1938	Acres	2.1	1.9	2.1	2.0

¹ Includes ending crop inventory and livestock inventory increases.

Table 16. Relation and Amount of Off-Farm Employment to Income and Progress of Settlers (127 owners)

Item	Unit	Value of Off-farm Employment			
		\$0 - \$99	\$100 - \$499	\$500 & over	All
Settlers	Number	46	56	25	127
Cropland per farm	Acres	6.9	7.3	3.5	6.4
Average period of settlement	Months	44	42	45	43
<u>Receipts:</u>					
Crops and livestock	Dollars	198	169	124	169
Wood products	Dollars	104	103	91	102
Off-farm employment	Dollars	25	261	875	296
Public assistance	Dollars	101	47	1	58
Other off-farm income	Dollars	96	28	6	48
Total receipts	Dollars	524	608	1,097	673
Total farm expenses	Dollars	192	200	163	190
Net family cash income ¹ (receipts less expenses)	Dollars	332	408	934	483
Value of farm products used	Dollars	178	167	170	173
Total family income (net cash income plus value of products used)	Dollars	509	575	1,104	656
Total increase in net worth	Dollars	516	629	693	600
Annual increase in net worth	Dollars	140	180	185	168
Land cleared in 1938	Acres	1.8	2.4	1.5	2.0

¹ Includes ending crop inventory and livestock inventory increases.

clearing during 1938 was less than that of the settlers who did not do so much off-farm work. It should also be noted that their total family income was only \$272 more than that of the owners with 20 or more acres of crops (Table 14), and that the latter group had increased their net worth at a considerably higher rate, \$293 annually as compared with \$185 annually for the settlers with \$500 worth or more of off-farm work but with an average of only 3.5 acres of crop. Off-farm employment opportunities vary considerably in the cut-over sections of northern Idaho. Better than average opportunities exist where logging employment is available.

The necessity for off-farm employment for settlers with inadequate crop acreage is obvious. Apparently, however, off-farm work during the spring and fall months when clearing is usually done interferes with farm development, suggesting that probably the average settler will be better off in the long run if he develops his farm as rapidly as possible and works off the farm only as much as is consistent with his farm operation and maximum farm development, his goal being to obtain a full-time farm that will make him independent of the necessity for supplemental employment.

FUTURE PROSPECTS

The prospects for the progress of new settlers on the cut-over lands of northern Idaho are diverse. Much depends on the quality of land in their farms and the speed with which they are able to clear their land and bring it into cultivation; moreover, during this period of development much depends on the opportunities for outside employment.

As pointed out, some settlement is taking place and clearing is being attempted in areas which competent technicians have classed as unsuited for agriculture. This condition prevails throughout northern Idaho. Once a settler purchases cut-over land, good or bad, clearing is necessary to establish a farm, but it is extremely ill-advised to sink capital and labor in land that cannot maintain agricultural production.

Timber production has offered the principal opportunities for off-farm employment. It is estimated that, if present values continue, profitable logging will be limited chiefly to the two major timber types, white pine and ponderosa pine, that could sustain the present yearly cut of about 700 million board feet. If minor species¹ increased sufficiently in value, an annual cut of about 2,250 million board feet could be maintained. It appears that employment afforded by the timber industry on a sustained yield basis is not likely to increase greatly unless conditions should change so as to increase the stumpage value of minor timber species. It is unlikely that the recent increase in logging of white fir for pulp will furnish employment for any great number of additional men. Continued migration to the area will increase the number of men competing for jobs, which will probably decrease the opportunities of present settlers for employment. In time this may be somewhat offset, because as present settlers increase crop acreages, their need for off-farm employment will decrease.

¹ Larch, Douglas fir, hemlock, white fir, englemen spruce, lodge-pole pine, and Western red cedar.

The early establishment of farm settlers in the area at a satisfactory living standard appears possible only if arrangements are made to promote more rapid land clearing and farm development. Rapid clearing by machine methods requires relatively high cash costs, and recent innovations in land-clearing technique have not materially helped the new settlers, owing to their inability to pay cash for clearing. Financial assistance to enable the settlers to clear good land rapidly by modern methods offers practical possibilities for developing full-time farms.

The use of the bulldozer, a large track-type tractor which pushes a heavy blade, is a new method that gives promise of increasing the rate at which clearing can be done. Experimental operation in Boundary County, carried on by the Farm Security Administration, resulted in the clearing of three acres a day at a cash cost of \$15 per acre, exclusive of the farmer's own time. Other bulldozer operations in Boundary and Bonner counties, by private contractors, have cleared land rapidly at total costs of \$15 per acre. Since the bulldozer is an expensive machine, it would have to be rented from a contractor or purchased on a community basis. In a few cases in the Northwest, the bulldozer has been purchased by a public agency and rented to various farmers at rates intended to cover investment and operating costs. The county agricultural extension agent supervises the routing of the machine from farm to farm where application has been made for its use.

If properly financed, clearing by use of the bulldozer could bring land into production at the rate of 10 or 15 acres a year on individual farms. By increasing crop acreages and productive livestock as the land is cleared, a farmer should become well established in 5 or 6 years. By use of rapid mechanized means, it should be possible for the settler to accomplish land clearing at a more rapid rate and still have about as much time available for off-farm work and wood-cutting to supplement his income during the development period. A 100-acre farm with 60 acres seeded mostly to alfalfa, and with enough productive livestock to utilize the crops produced, should provide a satisfactory family living and repay investment costs. Forty additional acres of cut-over land would be available for pasture and future clearing or sustained wood production. Long-term credit for the purpose of clearing land and providing livestock, with the provision that no principal or interest payments were to be made during the first four or five years would appear to be essential for developing a successful farm. Extension of credit in varying amounts from year to year as needed, with increasing rather than decreasing total amounts of debt assumed up to the time when the farm is large enough to be considered an economic unit, points toward a budget type of loan running over several years under supervision such as that provided by the Farm Security Administration. Arrangements of the character now used to develop land under Government reclamation projects might well be applied to finance clearing in cut-over areas.

As more land is cleared, the problem of erosion will become more acute, particularly on upland soils where slope is greatest. The low humus and nitrogen content of the soils, plus the need for soil-holding crops, necessitates the planting of legumes and grasses. This, in turn, suggests dairying or other livestock enterprises to utilize the crops produced.

When credit is extended to settlers for farm development, each farm plan should be made on an individual farm basis. It is clear that any plan for establishing a permanent agriculture must be based upon a requirement that the farm in question be suitable for agricultural development. The tentative plan that has been outlined here is not meant to be used to induce new farm settlers into northern Idaho, but rather to assist present settlers, who are now mainly dependent upon off-farm employment or relief, to become self-sustaining farm operators. Any sound program for expediting farm development on good land will tend to diminish the need for continued public assistance.

From reconnaissance land classifications and soil surveys, it is estimated that there are about 600,000 acres of good agricultural land in the upland cut-over areas of northern Idaho. From the 1930 Census precinct data and the school survey, it is estimated that there are about 1,000,000 acres in farms in these same areas. These estimates indicate that a considerable body of non-agricultural land is included within present farm boundaries. This leads to the conclusion that there are only very limited amounts of additional good land available for new farm development, exclusive of the undeveloped agricultural land already in farms. This emphasizes the importance of careful selection of land before it is developed for agriculture. Possibilities of the migration of farm settlers to northern Idaho are limited not only because of the limited areas of agricultural land available for development, but because some of this land will be required if rural families already in the area are to become established on adequate farms.



